

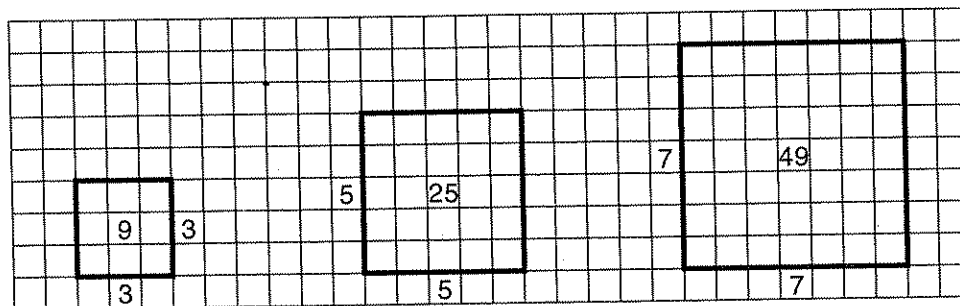
Name Key Date _____

Study Guide

Squares and Square Roots

When you multiply a number by itself, you are finding the square of the number.

Examples



$$3 \times 3 = 3^2 = 9$$

The square of 3 is 9.

$$5 \times 5 = 5^2 = 25$$

The square of 5 is 25.

$$7 \times 7 = 7^2 = 49$$

The square of 7 is 49.

If $a^2 = b$, then a is the square root of b . The symbol, $\sqrt{\quad}$ called a **radical sign**, is used to represent a nonnegative square root. Read $\sqrt{9}$ as "the square root of 9."

Examples

Find $\sqrt{9}$.

Since $3^2 = 9$,

$$\sqrt{9} = 3.$$

Find $\sqrt{16} = 4$.

Since $4^2 = 16$,

$$\sqrt{16} = 4.$$

Find $\sqrt{64}$.

Since $8^2 = 64$,

$$\sqrt{64} = 8.$$

Find the square of each number.

1. $9 = 9 \times 9 = 81$

2. $4 = 4 \times 4 = 16$

3. $10 \times 10 = 100$

4. $8 \times 8 = 64$

5. $24 \times 24 = 576$

6. $30 \times 30 = 900$

7. $15 \times 15 = 225$

8. $40 \times 40 = 1,600$

Find each square root.

9. $\sqrt{4} = 2$

10. $\sqrt{64} = 8$

11. $\sqrt{16} = 4$

12. $\sqrt{121} = 11$

13. $\sqrt{400} = 20$

14. $\sqrt{2,500} = 50$

15. $\sqrt{144} = 12$

16. $\sqrt{169} = 13$

17. $\sqrt{1} = 1$

18. $\sqrt{36} = 6$

19. $\sqrt{3,600} = 60$

20. $\sqrt{100} = 10$